

## REMARKS/ARGUMENTS

### *Status of the Application*

In the Final Office Action, claims 1-13 were rejected. In the present response, no amendments to the claims were made. Thus, claims 1-13 are pending. No new matter was added.

### *Rejections Under 35 U.S.C. §§ 102(e), 103(a)*

Claims 1-13 were rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Stengel *et al.* (U.S. Patent No. 6,458,885). Applicants respectfully traverse these rejections.

The present invention provides hydroxy-functional (meth)acrylic copolymers containing (a) hydroxy-functional monomers (e.g., hydroxyalkyl (meth)acrylates), (b) cycloaliphatic esters of (meth)acrylic acid, (c) other unsaturated monomers, and (d) at least one lactone; wherein, first, monomers (a) to (c) are polymerized resulting in a hydroxy-functional copolymer and then the hydroxy groups are modified by reaction with the lactone resulting in a *lactone-modified acrylic copolymer* (see pg. 8, lines 14-22, of Applicants' specification).

Contrarily, Stengel *et al.* does not disclose the lactone-modified acrylic copolymers of Applicants' claimed invention. Stengel *et al.* discloses hydroxy-functional (meth)acrylic copolymers containing (a) 0.5-15 wt.-% of monomers (a compound of structure I), wherein the presence of a branched alkyl group is essential (e.g., adducts of (meth)acrylic acid and Cardura® E); (b) 0-45 wt.-% of monomers (hydroxyalkyl (meth)acrylates); and (c) 40-98 wt.-% of other unsaturated monomers, such as alkyl and cycloalkyl (meth)acrylates, styrene, etc. (see column 2, lines 56-67). In addition to the hydroxy-functional acrylic copolymers (main binder), polyester polyols can be present in the Stengel *et al.* coating compositions (see column 4, lines 23-39). One example of a hydroxy-functional polyester is a polyester derived from a cyclic lactone and polyol or a hydroxy acid (see column 4, lines 36-39). There is no relationship, however, between Applicants' lactone-modified acrylic copolymers and Stengel *et al.*'s hydroxy-functional acrylic copolymers (the hydroxyl groups being unmodified) and lactone-based polyesters. Thus, Stengel *et al.* does not anticipate or make obvious Applicants' claimed invention.

The coating compositions of the present invention have excellent drying properties which leads to coatings with very good scratch resistance *in combination with* good hardness development (see pg. 4, lines 5-9, of Applicants' specification). Scratch resistance is not an issue in Stengel *et al.*, which focuses only on fast drying and hardness (see column 3, lines 11-16). The scratch resistance of a coating is a complex matter, depending on its hardness, but also on the elastic and viscous properties of the surface of the coating. The specific structure of the binders used in a coating composition has a principle effect on those properties. The claimed lactone-modified acrylic copolymers lead to coatings having an improved balance between very good drying properties, hardness, and scratch resistance. No such disclosure or suggestion is present in Stengel *et al.*

Thus, because there is no disclosure or suggestion in Stengel *et al.* of Applicants' lactone-modified acrylic copolymers, Applicants respectfully submit that Applicants' claimed invention is novel and nonobvious over Stengel *et al.*

### ***Summary***

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. In order to expedite disposition of this case, the Examiner is invited to contact Applicants' representative at the telephone number below to resolve any remaining issues. Should there be a fee due which is not accounted for, please charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,

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Dated: March 14, 2006